

**Notice of Allowability**

Application No.

09/488,390

Examiner

Vikkram Bali

Applicant(s)

TUMEY ET AL

Art Unit

2623

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5/9/2005.
2. ☒ The allowed claim(s) is/are 1-12, 14-16 (renumbered as 1-15).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

### **DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/9/2005 has been entered.

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Eric Cernyar, #45,919 on 2/16/2006.

The application has been amended as follows:

In claims:

Claim 1 (currently amended): An interactive entertainment apparatus operable to biometrically identify an imaged one of a plurality of animate or inanimate objects having

facial or face-like characteristics by measuring the facial or face-like characteristics of the imaged object, the interactive entertainment apparatus comprising:

an entertainment device positionable in proximity to said plurality of animate or inanimate objects, the entertainment device being capable of providing entertaining interaction with said plurality of animate or inanimate objects;

an acquisition device associated with said entertainment device, said acquisition device being adapted to acquire a representation of a facial ~~or face-like~~ characteristic of an object in proximity to said entertainment device, and said acquisition device being adapted to produce a signal relative to the acquired representation; and

a processor associated with said acquisition device in a manner to receive the produced signal from said acquisition device, said processor being adapted to compare the produced signal relative to data stored in memory and to provide an output signal indicative of a facial biometric recognition of a particular one of said animate or inanimate objects;

wherein the entertainment device provides said entertaining interaction in response to said output signal indicative of recognition.

Claim 2 (original): The interactive entertainment apparatus of claim 1, wherein said entertainment device comprises a toy.

Claim 3 (original): The interactive entertainment apparatus of claim 2, wherein said toy comprises a doll and said acquisition device is mounted to said doll.

Claim 4 (original): The interactive entertainment apparatus of claim 2, wherein:  
said toy comprises a doll; and

said acquisition device includes a camera contained within the head of said doll, said camera being situated to view objects located in front of the face of said doll.

Claim 5 (previously presented): The interactive entertainment apparatus of claim 4, wherein:

said processor is mounted inside said doll.

Claim 6 (original): The interactive entertainment apparatus of claim 4, wherein:

said doll is a teddy bear; and

said camera is mounted within the head of said teddy bear in a position to view objects through the eye of said teddy bear.

Claim 7 (original): The interactive entertainment apparatus of claim 1, wherein said entertainment device comprises a video game.

Claim 8 (original): The interactive entertainment apparatus of claim 1, wherein:

said acquisition device comprises a camera for acquiring a representation of all objects in proximity to said entertainment device;

said acquisition device is adapted to produce a signal relative to the acquired representation of all objects in proximity to said entertainment device; and

said processor is adapted to locate a characteristic portion of said produced signal, the characteristic portion being a portion that corresponds to a facial characteristic of one of the objects in proximity to said entertainment device.

Claim 9 (original): The interactive entertainment apparatus of claim 8, wherein:

said processor is further adapted to store representations of produced signals received from said acquisition device; and

said processor is adapted to compare a representation of a received signal relative to signal representations previously stored by said processor, to determine whether the received signal corresponds with a previous signal, and, if so, to provide an output signal indicative of recognition.

Claim 10 (original): The interactive entertainment apparatus of claim 9, wherein:

said processor utilizes artificial intelligence to compare signal representations and determine whether the received signal corresponds with a previous signal.

Claim 11 (currently amended): An interactive entertainment apparatus comprising:

- an entertainment device positionable in proximity to a person, the entertainment device capable of providing entertaining interaction with the person;
- an acquisition device associated with said entertainment device, said acquisition device being adapted to acquire a representation of a facial biometric characteristic of the person in proximity to said entertainment device, and said acquisition device being adapted to produce a signal relative to the acquired representation; and
- a processor associated with said acquisition device in a manner to receive the produced signal from said acquisition device, said processor being adapted to compare the produced signal relative to data stored in memory and to provide an output signal indicative of facial recognition of a particular person;

wherein the entertainment device provides said entertaining interaction in response to said output signal indicative of recognition.

Claim 12 (currently amended): A toy comprising:

- a camera and digitizer for acquiring representations of human facial images;
- a CPU associated with said camera and digitizer and capable of manipulating signals therefrom;
- a speaker and sound controls whereby sounds produced by said toy may be controlled;
- software resident on said CPU a computer readable medium having instructions for locating and biometrically recognizing said human facial images and providing an output facial image recognition signal indicative of a particular person;
- wherein the toy provides entertaining interaction in response to said output facial image recognition signal;
- said computer readable medium further having instructions capable of recognizing expressions in said facial images and providing a facial expression recognition signal indicative of recognition of said expressions; and

wherein said sound controls are responsive to said facial expression recognition signal to modify the sounds produced by said toy in relation to said facial expression recognition signal.

Claim 13 (cancelled).

Claim 14 (currently amended): The toy of claim 12-13, wherein:

said toy further comprises a microphone for the detection of sounds in the proximity of said toy; and

said ~~software is~~ computer readable medium further having instructions adapted to recognize human speech included in sounds detected by said microphone and control the toy in response to recognized human speech.

Claim 15 (currently amended): The toy of claim 14, wherein:

said sound controls include software controls included in said software, said software controls being adapted to produce synthesized speech; and

said toy further comprises animation controls adapted to control one or more motions of the toy; and

said animation controls are responsive to said facial expression recognition signal to animate said toy in relation to said facial expression recognition signal; and

said ~~software is~~ computer readable medium further having instructions adapted to produce synthesized speech choreographed with mechanical animation in response to recognition of said facial images and in response to recognition of said expressions.

Claim 16 (currently amended): The toy of claim 15, wherein said computer readable medium has instructions adapted further comprising software resident on said CPU for sending and receiving E-mail and providing other Internet-related interaction once said facial image is recognized.

***Allowable Subject Matter***

2. Claims 1-12, 14-16 (renumbered as 1-15) is allowed.

3. The following is an examiner's statement of reasons for allowance:

Per the applicant's persuasive arguments filled 3/19/2005, (pages 2-4 of remarks) including the Exhibit and the affidavit under 37 CFR 1.131 and 1.132, all the rejections to the claims have been withdrawn and the claims are allowed. .

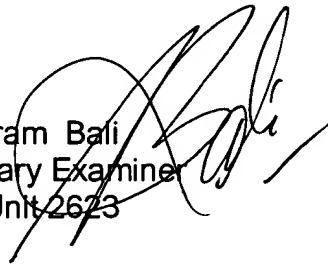
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vikkram Bali whose telephone number is 571.272.7415. The examiner can normally be reached on 7:00 AM - 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on 571.272.7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Vikkram Bali  
Primary Examiner  
Art Unit 2623



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February 16, 2006